



9.2 Town of Boonton

This section presents the jurisdictional annex for the Town of Boonton.

9.2.1 Hazard Mitigation Plan Point of Contact

The following individuals have been identified as the hazard mitigation plan's primary and alternate points of contact.

Primary Point of Contact	Alternate Point of Contact
Peter Herbert, OEM Coordinator 100 Washington Street, Boonton (973) 407-1624 pherbert@boonton.org	Cyril Wekilsy, Mayor 100 Washington Street, Boonton (973) 402-9410, ext. 623 mayor@boonton.org; cwekilsy@boonton.org

9.2.2 Municipal Profile

The Town of Boonton is located in northeastern Morris County and has a land area of 2.45 square miles. The Town is located approximately 22 miles west of the George Washington Bridge and seven miles north of Morristown. The Town is bordered to the north by the Township of Boonton, to the east by the Township of Montville, to the south by the Township of Parsippany-Troy Hills, and to the west by the Borough of Mountain Lakes. The Rockaway River and the Boonton Reservoir are the major water bodies in the Town. According to the U.S. Census, the 2010 population for the Town of Boonton was 8,347.

Growth/Development Trends

The following table summarizes recent residential/commercial development since 2010 to present and any known or anticipated major residential/commercial development and major infrastructure development that has been identified in the next five years within the municipality. Refer to the map in section 9.2.8 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.2-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units/Structures	Location (address and/or Block & Lot)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2010 to present					
No significant development occurred in the Town from 2010 to 2014					
Known or Anticipated Development in the Next Five Years					
Avalon Bay Developers	Residential	350 Units	Former Ashland Chemical Property – Wootton Street and Division Street	None	Pending – property has environmental issues. Developers have not yet purchased the property.

* Only location-specific hazard zones or vulnerabilities identified.

9.2.3 Natural Hazard Event History Specific to the Municipality

Morris County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5.0 of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities. For the purpose of this plan update, events that



have occurred in the County from 2008 to present were summarized to indicate the range and impact of hazard events in the community. Information regarding specific damages is included, if available, based on reference material or local sources. This information is presented in the table below. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.

Table 9.2-2. Hazard Event History

Dates of Event	Event Type	FEMA Declaration # (If Applicable)	County Designated?	Summary of Damages/Losses
August 26 – September 5, 2011	Hurricane Irene	EM-3332 DR-4021	Yes Yes	Significant flooding along Rockaway River. Severe streambank erosion at Rockaway Street and Harrison Street.
October 26 – November 8, 2012	Hurricane Sandy	EM-3354 DR-4086	Yes Yes	Power outages in 60-70% of town, ranging from 4 days to nearly three weeks; debris management

9.2.4 Hazard Vulnerabilities and Ranking

The hazard profiles in Section 5.0 of this plan have detailed information regarding each plan participant's vulnerability to the identified hazards. The following summarizes the hazard vulnerabilities and their ranking in the Town of Boonton. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk/Vulnerability Risk Ranking

The table below summarizes the hazard risk/vulnerability rankings of potential hazards for the Town of Boonton.

Table 9.2-3. Hazard Risk/Vulnerability Risk Ranking

Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a, c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
Drought	Damage estimate not available	Frequent	27	Medium
Dam Failure	Damage estimate not available	Occasional	24	Medium
Earthquake	500-year MRP: \$925,880 2,500-year MRP: \$19,353,424	Occasional	27	Medium
Extreme Temperature	Damage estimate not available	Frequent	18	Medium
Flood	1% Annual Chance: \$2,076,829	Frequent	18	Medium
Geological Hazards	Exposed to Class A and Class B: \$8,329,392	Frequent	18	Medium
Severe Storm	100-Year MRP: \$1,319,258 500-year MRP: \$5,390,852 Annualized: \$93,301	Frequent	48	High
Winter Storm	1% GBS: \$23,598,067 5% GBS: \$117,990,335	Frequent	54	High
Wildfire	Estimated Value Exposed to Extreme, Very High and High: \$63,487,802	Rare	6	Low
Disease Outbreak	Damage estimate not available	Frequent	36	High
Hazardous Materials	Damage estimate not available	Frequent	36	High
Infestation	Damage estimate not available	Frequent	18	Medium

Notes:



- a. Building damage ratio estimates based on FEMA 386-2 (August 2001)
- b. The valuation of general building stock and loss estimates was based on custom inventory for the municipality.
 High = Total hazard priority risk ranking score of 31 and above
 Medium = Total hazard priority risk ranking of 20-30+
 Low = Total hazard risk ranking below 20
- c. Loss estimates for the severe storm and severe winter storm hazards are structural values only and do not include the value of contents.
- d. Loss estimates for the flood and earthquake hazards represent both structure and contents.
- e. The HAZUS-MH earthquake model results are reported by Census Tract.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Boonton.

Table 9.2-4. NFIP Summary

Municipality	# Policies (1)	# Claims (Losses) (1)	Total Loss Payments (2)	# Rep. Loss Prop. (1)	# Severe Rep. Loss Prop. (1)	# Policies in 100-year Boundary (3)
Town of Boonton	9	9	\$25,875.64	0	0	2

Source: FEMA Region 2, 2014

(1) Policies, claims, repetitive loss and severe repetitive loss statistics provided by FEMA Region 2, and are current as of 9/30/2014. Please note the total number of repetitive loss properties includes the severe repetitive loss properties. The number of claims represents claims closed by 9/30/14.

(2) Total building and content losses from the claims file provided by FEMA Region 2.

(3) The policies inside and outside of the flood zones is based on the latitude and longitude provided by FEMA Region 2 in the policy file.

Notes: FEMA noted that where there is more than one entry for a property, there may be more than one policy in force or more than one GIS possibility.

A zero percentage denotes less than 1/100th percentage and not zero damages or vulnerability as may be the case.

Number of policies and claims and claims total exclude properties located outside County boundary, based on provided latitude and longitude.

Critical Facilities

The table below presents HAZUS-MH estimates of the damage and loss of use to critical facilities in the community as a result of a 1-and 0.2-percent annual chance flood events.

Table 9.2-5. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	Days to 100-Percent ⁽¹⁾
Boonton Dam	Dam	X	X	-	-	-
Old Morris Canal Dam	Dam	X	X	-	-	-

Source: HAZUS-MH 2.1

Note (1): HAZUS-MH 2.1 provides a general indication of the maximum restoration time for 100% operations. Clearly, a great deal of effort is needed to quickly restore essential facilities to full functionality; therefore this will be an indication of the maximum downtime (HAZUS-MH 2.1 User Manual).

Note (2): In some cases, a facility may be located in the DFIRM flood hazard boundary; however HAZUS did not calculate potential loss. This may be because the depth of flooding does not amount to any damages to the structure according to the depth damage function used in HAZUS for that facility type. Further, HAZUS-MH may estimate potential damage to a facility that is outside the DFIRM because the model generated a depth grid beyond the DFIRM boundaries.

NA Not available

X Facility located within the DFIRM boundary

- Not calculated by HAZUS-MH 2.1



Other Vulnerabilities Identified

According to the preliminary 2010 FEMA FIS, the Town of Boonton is impacted by flooding from the Rockaway River. Increased flooding at the River may be attributed to an increase in urbanization. Some areas of the Town are subject to frequent flooding and ponding of surface water, especially during localized thunderstorms and hurricanes. Such conditions exist between Oak and Green Streets in the northern portion of the Town and in the Sheep Hill section. In the southern end of the Town, periodic flooding is encountered between Boonton High School and at the rear of the Kanouse Street properties. Areas bordering the Rockaway River, from Greenback Road to Montville Township along Vreeland Avenue, are also vulnerable to flooding (FEMA FIS 2010).

The Town has noted the following vulnerabilities:

Critical facilities that have no or insufficient back-up power are:

- Town Hall (Town offices, police, fire, comfort station) – 100 Washington Street: Existing generator is only sized to power parts of police department.
- Sewer Lift Stations: Toner Road station has hook-up for portable backup unit but needs permanent backup power, but does not have enough property currently to site. Myrtle Avenue station (underground) needs backup power.
- DPW facility (off Plane Street): This facility includes the Town fueling facilities, and lacks permanent backup power.
- Kiwanis EMS – Washington Street: Lacks backup power.
- Boonton Housing Authority (Federal) Senior Housing-125 Chestnut Street: 20-30 cottages lack backup power
- Senior Building: Hall with small kitchen can accommodate ~60 people as a comfort station, lacks backup power.
- Recreation Center: Town is funding a generator for this facility that can serve as a comfort station.
- High School: Lacks backup power, however the Town is not considering retrofitting this facility as a formal shelter.
- Traffic lights: Major traffic lights throughout the Town lack backup power.

Flooding

The bottom of Vreeland Avenue at River Road floods during heavy rain events. The drainage pipe managing stormwater in this area is undersized. Plans to upgrade the stormwater drainage system in 1999 could not be funded. The size of the necessary upgrade may require the County to perform.

Lake Avenue at street end floods regularly.

Lorraine Terrace is an area with a high water table, however residences here have sump pumps.

Stream channel maintenance, particularly with respect to fallen trees (snags) is problem. The Town has identified and mapped some 48 fallen trees. A \$300,000 stream maintenance grant being shared by the Towns of Boonton, Montville and Parsippany will be implemented starting 2015, but is inadequate to fully address the conditions within the Rockaway River throughout these three communities.

Streambank Erosion:

Streambank erosion along the Rockaway River in the areas of at Rockaway Street and Harrison Street is severe. Two residential properties are particularly affected. Through the Morris County Flood Mitigation



Program, one has been purchased and demolished, the other is in the process of being acquired. The NJTransit railroad bridge trestle in this area may be vulnerable to stream migration and erosion in this area. Rockaway Valley Sewerage Authority sewer lines in this area broke during tropical storm Irene, flooding two residences with sewage. Jersey City (water) has jurisdiction over the stream channel and banks in this area.

9.2.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- NFIP
- Integration of Mitigation Planning into Existing and Future Planning Mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Boonton.

Table 9.2-6. Planning and Regulatory Tools

Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Master/Comprehensive Plan	Yes	Local	Planning Board	1998; 2008 Re-examination
Capital Improvements Plan	Yes	Local	Planning Board	Three-year plan
Floodplain Management/Basin Plan	Yes	Local	OEM working with all departments	Morris County Hazard Mitigation Plan (2010, updating 2015) Flood Acquisition Plan (with Morris County)
Stormwater Management Plan	Yes	Local	Contract Engineering	MS4 Plan 2005
Open Space Plan	Yes	Local	Planning Board	2008
Stream Corridor Management Plan	No			
Watershed Management or Protection Plan	No			
Economic Development Plan	No			Town is currently in process of formalizing Economic Development plan with a local committee.
Comprehensive Emergency Management Plan	Yes	Local	Town of Boonton OEM	2012 (EOP)
Emergency Response Plan	Yes	Local	Town of Boonton OEM	2012 (EOP)
Post-Disaster Recovery Plan	No			
Transportation Plan	No			



Tool/Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept./Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Strategic Recovery Planning Report	No			
Other Plans:	N/A			
Regulatory Capability				
Building Code	Yes	State & Local	Construction Department	State Uniform Construction Code Act (N.J.S. 52:27D-119 et seq.)
Zoning Ordinance	Yes	Local	Planning Board	Ordinance 05-13
Subdivision Ordinance	Yes	Local	Planning Board	Ordinance 05-13
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Construction Department, with contract engineering support	Chapter 140
NFIP: Cumulative Substantial Damages	No			
NFIP: Freeboard	Yes	State, Local	Construction	Chapter 300
Growth Management Ordinances	No			
Site Plan Review Requirements	Yes	Local	Planning Board	Chapter 300 Part 3
Stormwater Management Ordinance	Yes	Local	Planning Board	Chapter 249
Municipal Separate Storm Sewer System (MS4)	Yes	Local	Township Committee	Chapter 93
Natural Hazard Ordinance	No			
Post-Disaster Recovery Ordinance	No			
Real Estate Disclosure Requirement	No	State	Division of Consumer Affairs	N.J.A.C. 13:45A-29.1
Other [Special Purpose Ordinances (i.e., sensitive areas, steep slope)]	Yes	Local	Construction	Steep Slopes Chapter 125

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the Town of Boonton.

Table 9.2-7. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/Agency/Position
Administrative Capability		
Planning Board	Yes	Planning/Zoning Board
Mitigation Planning Committee	Yes (ad hoc)	The Mayor and various department representatives have provided input to the 2015 HMP update
Environmental Board/Commission	Yes	Planning Board



Resources	Is this in place? (Yes or No)	Department/Agency/Position
Open Space Board/Committee	Yes	Planning Board
Economic Development Commission/Committee	No	
Maintenance Programs to Reduce Risk	Yes	Capital Plan; DPW; OEM
Mutual Aid Agreements	Yes	OEM, Administration
Technical/Staffing Capability		
Planner(s) or Engineer(s) with knowledge of land development and land management practices	Yes	Contracted (Suburban Consulting Engineering, Maser Consulting, Boswell Engineering)
Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Construction Department; contract engineering
Planners or engineers with an understanding of natural hazards	Yes	Contracted (Suburban Consulting Engineering, Maser Consulting, Boswell Engineering)
NFIP Floodplain Administrator	Yes	Planning/Zoning Board, Consultant
Surveyor(s)	Yes	Contracted
Personnel skilled or trained in GIS and/or Hazus-MH applications	Yes	Contract Engineering; Town OEM
Scientist familiar with natural hazards	No	
Emergency Manager	Yes	Peter Herbert, Town OEM
Grant Writer(s)	Yes	Consultant
Staff with expertise or training in benefit/cost analysis	Yes	Consultant
Professionals trained in conducting damage assessments	Yes	Peter Herbert, Town OEM

Fiscal Capability

The table below summarizes financial resources available to the Town of Boonton.

Table 9.2-8. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No/Don't Know)
Community Development Block Grants (CDBG, CDBG-DR)	Yes
Capital Improvements Project Funding	Yes, Three Year Capital Plan
Authority to Levy Taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes (water, sewer)
Impact Fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other Federal or State Funding Programs	FEMA grant programs, Public Assistance
Open Space Acquisition Funding Programs	Morris County Flood Mitigation Program (acquisitions)
Other	N/A



Community Classifications

The table below summarizes classifications for community program available to the Town of Boonton.

Table 9.2-9. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	TBD	TBD	TBD
Public Protection (ISO Fire Protection Classes 1 to 10)	TBD	TBD	TBD
Storm Ready	No	NP	N/A
Firewise	No	NP	N/A
Disaster/Safety Programs in/for Schools	TBD	TBD	TBD
Organizations with Mitigation Focus (advocacy group, non-government)	TBD	TBD	TBD
Public Education Program/Outreach (through website, social media)	Yes	N/A	Nixel; United Alert; Facebook; Twitter
Public-Private Partnerships	TBD	TBD	TBD

N/A = Not applicable. NP = Not participating. - = Unavailable. TBD = To be determined.

The classifications listed above relate to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery, and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The Community Rating System (CRS) class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class 1 being the best possible classification, and class 10 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1,000 feet of a creditable fire hydrant and is within five road miles of a recognized Fire Station.

Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual
- The Building Code Effectiveness Grading Schedule
- The ISO Mitigation online ISO's Public Protection website at <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of Boonton's capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.



Table 9.2-10. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)*	Moderate	High
Planning and Regulatory Capability		X	
Administrative and Technical Capability		X	
Fiscal Capability	X (tax caps)		
Community Political Capability		X	
Community Resiliency Capability		X	
Capability to Integrate Mitigation into Municipal Processes and Activities.		X	

National Flood Insurance Program (NFIP)

The Town is currently an active member of the NFIP, in good compliance. The Town's NFIP regulatory and enforcement programs meet at least the minimum Federal and State requirements. The community joined the NFIP on 05/19/81. The current effective NFIP rate maps for the community are dated 04/17/85. Per the Town's Flood Damage Prevention Ordinance (Chapter 140 of Town Code), "the Mayor and Board of Aldermen will appoint by resolution an official or officials" to serve as the NFIP Floodplain Administrator. Currently the Town has appointed their consulting engineering firm to administer their NFIP program.

As of 2/28/2015 there are 10 NFIP policies in force within the community, insuring \$2,415,700 of property with total annual insurance premiums of \$11,214. Since 1978, 9 NFIP claims have been paid totaling \$25,876. As of 9/30/2014, there are no Repetitive Loss or Severe Repetitive Loss properties in the community.

The Town has site plan review, permitting and inspection process that insures that new development and substantial improvements are conducted in compliance with all regulations and ordinances, including consideration of natural hazard risk areas.

Due to their limited policy base and municipal resources, the Town does not believe that participation in the NFIP's Community Rating System (CRS) program would be cost-effective or practical at this time.

Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures.

Planning

The Town's Master Plan addresses the preservation and protection of important natural features. Provisions for open space are also addressed. Town level mitigation initiatives regarding local environmental issues are not addressed. However, mentions of the Countywide Hazard Mitigation Plan are made to address environmental issues as necessary. The Town's Master Plan is re-examined every six years as per Municipal Land Use Law (MLUL). Boonton last re-examined their Master Plan in 2008.



The 2008 re-examination addressed the Master Plan Amendment-Land Use Plan Element which was adopted on October 12, 2005. In April 2006, the House Plan Element and Fair Share Plan was adopted by the Boonton Planning Board to better address the need for low and moderate income households. The Stormwater Management Plan was adopted in compliance with New Jersey State Law in 2005.

The Town maintains its own Emergency Operations Plan approved by both the County and State.

The Town of Boonton participates in the County's Flood Mitigation Program (FMP) and has an approved Flood Acquisition Plan (FLAP). The Morris County FMP is the first dedicated, county-level flood acquisition program in the State of New Jersey. The FMP allows Morris County to assist municipalities in moving people out of harm's way, lowering municipal costs due to intense flooding episodes, and create natural flood capture and storage areas which protect the remaining homes and businesses. The FMP is funded by the Morris County Open Space tax and provides grant monies for municipalities to purchase flood-prone residential properties. In addition to MATCH funding available for projects with state or federal monies, Morris County has CORE funding in which the County takes the lead grant role, providing up to 75% of the cost of acquisition. To access this CORE funding, a municipality must have a Flood Acquisition Plan (FLAP). The FLAP is a dynamic, essential tool for understanding the unique flood hazards to residential homes within each community. Working closely with the municipality, Morris County creates this detailed, comprehensive analysis of the historic and current flood risks free of charge. A wide array of data is utilized from sources such as: FEMA, NFIP, USACE Flood Studies, USGS stream gage data, topography, and soil analysis. All land acquired with MATCH and CORE funding within the FMP is permanently deed-restricted, preserved open space, available for public use as an active or passive recreation area. The acquired land is municipal-owned and managed in perpetuity.

Regulatory and Enforcement

The Planning and Zoning Board for the Town are one entity. Considerations for natural hazards are addressed during the permit review process. Very few properties in the Town are impacted by floodplain regulations. A steep slope ordinance has been adopted by the Town.

During the permit review process, presentations are made to the Planning and Zoning Board, Town Planner, Planning Board Attorney, and Town Engineer to determine any conflicts with the Town Master Plan and existing hazards. Should a conflict be found during the review process, the Town Engineer indicates the necessary mitigation required by the developer before construction can commence.

Operational and Administration

The positions of municipal planner and municipal engineer are both contracted positions. These individuals assist the Town with planning and engineering needs. Plans and proposals are reviewed for compliance with existing regulations. Support is provided by the Town's Planning/Zoning Board to clarify issues regarding the management of hazard risk and natural hazard regulations.

Suburban Engineering is the contracted firm responsible for the Stormwater Management program for the Town. The Town Department of Public Works provides oversight and local direction to Suburban Engineering for the program to run successfully.

The Flood Damage Prevention Ordinance states the Mayor/Board of Aldermen is appointed the municipal floodplain administrator. At the moment, the Planning/Zoning Board with assistance from the Town Engineer performs this duty. Substantial Damage Estimates are performed with the Town Engineer's assistance when needed.



Additional training and education regarding natural hazard risk reduction for municipal personnel is not available at this time. The Town does support personnel's responsibility and ability to retain their necessary accreditations.

The Town receives assistance from a contracted resource, Capital Alternatives, when preparing grant applications. Grants dealing specifically with mitigation projects are handled by this firm.

Fiscal

As deemed applicable, the Town's Capital Improvement Budget can include line items addressing mitigation project needs throughout the Town. Projects included are typically restoration projects and not mitigation projects.

FEMA funding has recently been pursued by the Town to address slope remediation needs along the Rockaway River. Previous grants have been awarded for hazardous waste site remediation through Federal Superfund monies.

Education and Outreach

The current public education and outreach conducted by the Town includes press releases, website notices, printed fliers, mailings social medial (Facebook and Twitter), Nixle and United Alert text notifications, Reverse 911, and public sign message boards. These methods reach a wide array of people quickly and effectively while using multiple outlets.

In conjunction with the County, the Town is in the beginning stages of developing a public education and outreach program. The purpose of the program is to inform and disseminate information to the public regarding hazard mitigation and preparedness.



9.2.6 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community's mitigation strategy identified in the 2010 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under 'Capability Assessment' presented previously in this annex.

Table 9.2-11. Past Mitigation Initiative Status

Description	Status	Review Comments
Boonton Town 1: Backup power (Generator) for shelter at Boonton High School	No progress.	The town believes the High School is a lower priority for backup power, as they have no plans to use this facility for formal sheltering. Critical and essential facilities needed backup power or upgrades have been identified in the updated mitigation strategy, indicating priority.
Boonton Town 2: Engineering study to determine if backup power (generator) is large enough to run all critical functions in the Town Hall	In progress.	See above. Town Hall is a high priority for backup power upgrade. The Town is currently evaluating backup capacity needed.
Boonton Town 3: Renovate and enlarge culvert at Vreeland Avenue and Greenbank Road (actually River Road)	No progress – lack of funding.	A 1999 plan to perform stormwater management upgrades here could not be funded. Project is being carried forward in the 2015 strategy.
Boonton Town 4: Upgrade storm drains on Wootton Street to mitigate flooding.	No progress – lack of funding.	Project is being carried forward in the 2015 strategy.
Boonton Town 5: Emergency early warning PA system in the event of Jersey City Reservoir Dam failure	In progress. Town is supporting United Water's efforts.	Program to be carried forward in 2015 strategy, combined with associated project below.
Boonton Town 6: Alert system downstream of Boonton Dam in conjunction with Parsippany and Montville.	In progress.	See above.
Boonton Town 7: Develop all hazards public education and outreach program for hazard mitigation and preparedness.	Complete.	The Town has established various communication and outreach programs including Nixel and United Alert, the use of social media (Facebook and Twitter), notices in water bills, and message boarding.

Completed Mitigation Initiatives not Identified in the Previous Mitigation Strategy

The municipality has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2010 Plan:

- After suffering water line freezing in 1977, the Town lowered most mains.
- The Town upgraded and flood-proofed the Boonton well fields (elevated Well 4; replaced two wells with submersible pumps).



- Through the Morris County Flood Mitigation Program, one vulnerable residence was acquired and demolished, and another is pending acquisition.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Boonton participated in a mitigation action workshop in January 2015 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

Table 9.2-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Boonton would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide-range of activities and mitigation measures selected.

As discussed in Section 6, fourteen evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High,’ ‘Medium,’ or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.2-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.2-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
B-1 (former Boonton Town 1 and 2)	Backup Power for Critical and Essential Facilities: Install or upgrade backup power equipment at the following critical and essential facilities in the Town, as necessary funding is appropriated. While this overall initiative is considered a “High” priority, the individual locations have been prioritized to identify the prioritization of sites within this over-arching initiative: <ul style="list-style-type: none"> Town Hall (most Town offices, police, fire, comfort station) – 100 Washington Street: Existing generator is only sized to power parts of police department. Upgrade existing system so that all operations within the Town Hall complex have backup power. High Priority Sewer Lift Stations: Install permanent backup power equipment for the Toner Road and Myrtle Avenue lift stations. Toner Road will need to acquire additional property to site this equipment. High Priority. DPW facility (off Plane Street): Install permanent back up power equipment to support DPW operations which includes the Town fleet fueling facilities. High Priority. Recreation Center: Town is funding a generator for this facility that can serve as a comfort station. High Priority. Kiwanis EMS – Washington Street Boonton Housing Authority (Federal) Senior Housing-125 Chestnut Street: 20-30 cottages lack backup power. Senior Building: Hall with small kitchen can accommodate ~60 people as a comfort station, lacks backup power. High School: Lacks backup power, however the Town is not considering retrofitting this facility as a formal shelter. Low Priority. Traffic lights: Major traffic lights throughout the Town lack backup power. 											
	See above.	Existing	All hazards resulting in power outages.	3, 4	Boonton Town OEM, working with facility representatives	High – continued operation of critical and essential facilities; reduced emergency services costs; potential life safety	Medium – Site/project-specific	Town Budget; available mitigation grant funding with Town or facility owner funding for local match	Short term for projects already funded (e.g. Rec. Center); long term for those projects where funding is not yet secured.	High	SIP	PP
B-2 (former Boonton Town 3)	Vreeland Avenue Stormwater Management Upgrades: Renovate and enlarge culvert at Vreeland Avenue and River Road. This area floods during heavy rain events, resulting in road closures and traffic diversion. Private property flooding is limited to open land areas. A 1999 plan to perform stormwater management upgrades here could not be funded.											
	See above.	Existing	Flood; Severe Storm	3, 4	Department of Public Works; size of project may require County implementation	Reduced vulnerability of critical infrastructure to closure; reduced need for emergency protective services.	Medium	TBD	Short Term/DOF	Medium	SIP	PP
B-3 (former Boonton Town 4)	Wootton Street Stormwater Management Upgrades: Upgrade storm	Existing	Flood; Severe Storm	3, 4	Department of Public Works	Reduced vulnerability of critical infrastructure to closure;	High	TBD	Short Term/DOF	Medium	SIP	PP



Table 9.2-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	drains on Wootton Street to mitigate flooding.					emergency protective services.						
B-4 (former Boonton Town 5 and 6)	Jersey City Reservoir Dam Failure Detection and Warning System: Continue to work with United Water (dam owner) as they develop and implement dam failure detection and early warning/alert programs and systems. Support outreach and education efforts for properties in the dam failure inundation zone as procedures and systems are established and/or enhanced.											
	See above.	Existing	Dam Failure (Flood, Severe Storm, Earthquake)	3, 4	Boonton Town OEM, working with United Water	High – Life Safety	Low for Town	Existing budgets	On-going	High	EAP	PI
B-5	Rockaway River Stream Channel Rehabilitation: Continue to work with Towns of Montville and Parsippany in implementing the stream maintenance program funded through the joint NJDEP grant. Continue to seek additional funding to address fallen trees (snags) that do not get addressed by the existing grant funded project.											
	See above.	N/A	Flood; Severe Storm	3, 4	Boonton DPW working with Towns of Montville and Parsippany (project lead)	High – Reduced vulnerability to riverine flooding and associated damage to structures/infrastructure	Medium-High	NJDEP Grant	Ongoing – had a project meeting in Spring 2015. Parsippany is putting out an RFP for project implementation in late Spring 2015.	High	SIP, NSP	PP, NR
B-6	Rockaway River Streambank Stabilization at Rockaway Street and Harrison Street: Continue to work with Jersey City, United Water, NJDEP and FEMA to address the severe streambank erosion/slope failure issues in these two locations. It is noted that FEMA has twice denied the Town's request for funding for a stabilization project at the Rockaway Street location. The Town shall continue to perform regular monitoring and photo-documentation of the continual degradation of the banks in these areas.											
	See above.	Existing	Flood; Severe Storm; Land Failure	3, 4	Boonton DPW working with United Water, City of Jersey City, NJDEP, FEMA and ACOE	Slope failures impacting public and private property and infrastructure	High	TBD	Ongoing	High	SIP	PP
B-7	Implementation of Boonton Town Flood Acquisition Plan (FLAP): Continue to work with private property owner impacted by severe streambank erosion along the Rockaway River to finalize acquisition, demolition and conversion of property to permanent open-space.											
	See above.	Existing	Flood; Land Failure	3, 4	Mayor working along with Morris County and property owner	Elimination of vulnerability of residential structure	Medium-High	Morris County Flood Mitigation Program	DOF	Medium	SIP	PP
B-8	Vulnerability Assessment of NJ Transit Railroad Trestle along Rockaway River: Petition/encourage NJ Transit to evaluate the vulnerability of their railroad trestle that is believe to be vulnerable streambank erosion and undermining by the adjacent Rockaway River.											



Table 9.2-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	See above.	New and Existing	Flood, Severe Storm	3, 4	Town of Boonton DPW working with RVRSA	Reduced vulnerability of wastewater lines from flood damage	Low for Town	Existing budget	DOF	Medium	SIP	PP
B-9	Rockaway Valley Regional Sewerage Authority (RVRSA) Wastewater System Mitigation: Support the RVRSA as they implement their project to build two pump stations to bypass their existing vulnerable conveyance lines within the Rockaway River flood vulnerable area which were broken during Irene.											
	See above.	New and Existing	Flood, Severe Storm	3, 4	Town of Boonton DPW working with RVRSA	Reduced vulnerability of wastewater lines from flood damage	Low for Town	Existing budget	DOF	Medium	SIP	PP
B-10	JCP&L Electric Distribution Upgrades: Continue to support JCP&L as they work to perform electric system upgrades (line repair) in the area of the Drew substation (Rt. 287, Vreeland and Toner area). Continue to petition JCP&L to tie in the Fox Hill substation into the Boonton Township potable water treatment plant. With the current electric configuration, both water treatment plants serving the town are on the same electric feed.											
	See above.	New and Existing	Severe Storm; Severe Winter Storm	3, 4	Town of Boonton DPW working with JCP&L	Increased resiliency of electric distribution system; protection of critical infrastructure	Low for Town	Existing budget budget	Ongoing – Drew substation upgrades to be performed by JCP&L in 2015	High	SIP	PP
B-11	Continue to support floodprone residents with private property flood mitigation. Specifically, provide property owners with information on flood insurance and available mitigation grant funding programs (Federal and County).	Existing	Flood	3, 4	Town of Boonton working with flood vulnerable property owners	Reduced vulnerability of private property	Low – outreach; High – mitigation.	Town budget for outreach. HMA grant funding for mitigation, property owner for local match.	Short term for outreach; long term for mitigation.	Medium	EAP, SIP	PP, PI
B-12	Mobile Internet Access: Establish mobile internet access (WIFI) “cradles” in	N/A	Any hazard resulting in loss of communication services	3, 4	Town OEM	Ability to maintain internet communications during disasters and emergencies	Low	Existing Budget	DOF	Medium	LPR	PI



Table 9.2-12. Proposed Hazard Mitigation Initiatives

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Lead and Support Agencies	Estimated Benefits	Estimated Cost	Sources of Funding	Timeline	Priority	Mitigation Category	CRS Category
	vehicles that can be deployed as needed to support internet access during emergency situations and internet outages.											

Notes:

Not all acronyms and abbreviations defined below are included in the table.

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
NJDEP	New Jersey Department of Environmental Protection
NJOEM	New Jersey Office of Emergency Management
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program
RFC	Repetitive Flood Claims Grant Program (discontinued 2015)
SRL	Severe Repetitive Loss Grant Program (discontinued 2015)

Timeline:

Short	1 to 5 years
Long Term	5 years or greater
OG	On-going program
DOF	Depending on funding

Costs:

Where actual project costs have been reasonably estimated:

Low	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where actual project costs cannot reasonably be established at this time:

Low	Possible to fund under existing budget. Project is part of, or can be part of an existing on-going program.
Medium	Could budget for under existing work plan, but would require a reapportionment of the budget or a budget amendment, or the cost of the

Benefits:

Where possible, an estimate of project benefits (per FEMA's benefit calculation methodology) has been evaluated against the project costs, and is presented as:

Low=	< \$10,000
Medium	\$10,000 to \$100,000
High	> \$100,000

Where numerical project benefits cannot reasonably be established at this time:

Low	Long-term benefits of the project are difficult to quantify in the short term.
Medium	Project will have a long-term impact on the reduction of risk exposure to life and property, or project will provide an immediate reduction in the risk



Costs:

project would have to be spread over multiple years.

High

Would require an increase in revenue via an alternative source (i.e., bonds, grants, fee increases) to implement. Existing funding levels are not adequate to cover the costs of the proposed project.

Benefits:

exposure to property.

High

Project will have an immediate impact on the reduction of risk exposure to life and property.

Mitigation Category:

- *Local Plans and Regulations (LPR)* – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- *Structure and Infrastructure Project (SIP)*–These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- *Natural Systems Protection (NSP)* – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- *Education and Awareness Programs (EAP)* – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- *Preventative Measures (PR)*–Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- *Property Protection (PP)*–These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- *Public Information (PI)*–Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- *Natural Resource Protection (NR)*–Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- *Structural Flood Control Projects (SP)*–Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- *Emergency Services (ES)*–Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities



Table 9.2-13. Summary of Prioritization of Actions

Mitigation Action/Project Number	Mitigation Action/Initiative	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High/Medium/Low
B-1 (former Boonton Town 1 and 2)	Backup Power for Critical and Essential Facilities	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	High
B-2 (former Boonton Town 3)	Vreeland Avenue Stormwater Management Upgrades	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Medium
B-3 (former Boonton Town 4)	Wootton Street Stormwater Management Upgrades	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	Medium
B-4 (former Boonton Town 5 and 6)	Jersey City Reservoir Dam Failure Detection and Warning System	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	High
B-5	Rockaway River Stream Channel Rehabilitation	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
B-6	Rockaway River Streambank Stabilization at Rockaway Street and Harrison Street	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
B-7	Implementation of Boonton Town Flood Acquisition Plan (FLAP)	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	Medium
B-8	Vulnerability Assessment of NJ Transit Railroad Trestle along Rockaway River	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	Medium
B-9	Rockaway Valley Regional Sewerage Authority (RVRSA) Wastewater System Mitigation	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	Medium
B-10	JCP&L Electric Distribution Upgrades	1	1	1	1	1	0	0	0	0	1	1	1	1	1	10	High
B-11	Continue to support floodprone residents	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	Medium
B-12	Mobile Internet Access	1	1	1	1	0	0	1	0	0	1	1	1	1	0	9	Medium

Note: Refer to Section 6 which contains the guidance on conducting the prioritization of mitigation actions.



9.2.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.2.8 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Boonton that illustrate the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan, and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Boonton has significant exposure. These maps are illustrated in the hazard profiles within Section 5.4, Volume I of this Plan.

9.2.9 Additional Comments

None at this time.



Figure 9.2-1. Town of Boonton Hazard Area Extent and Location Map 1

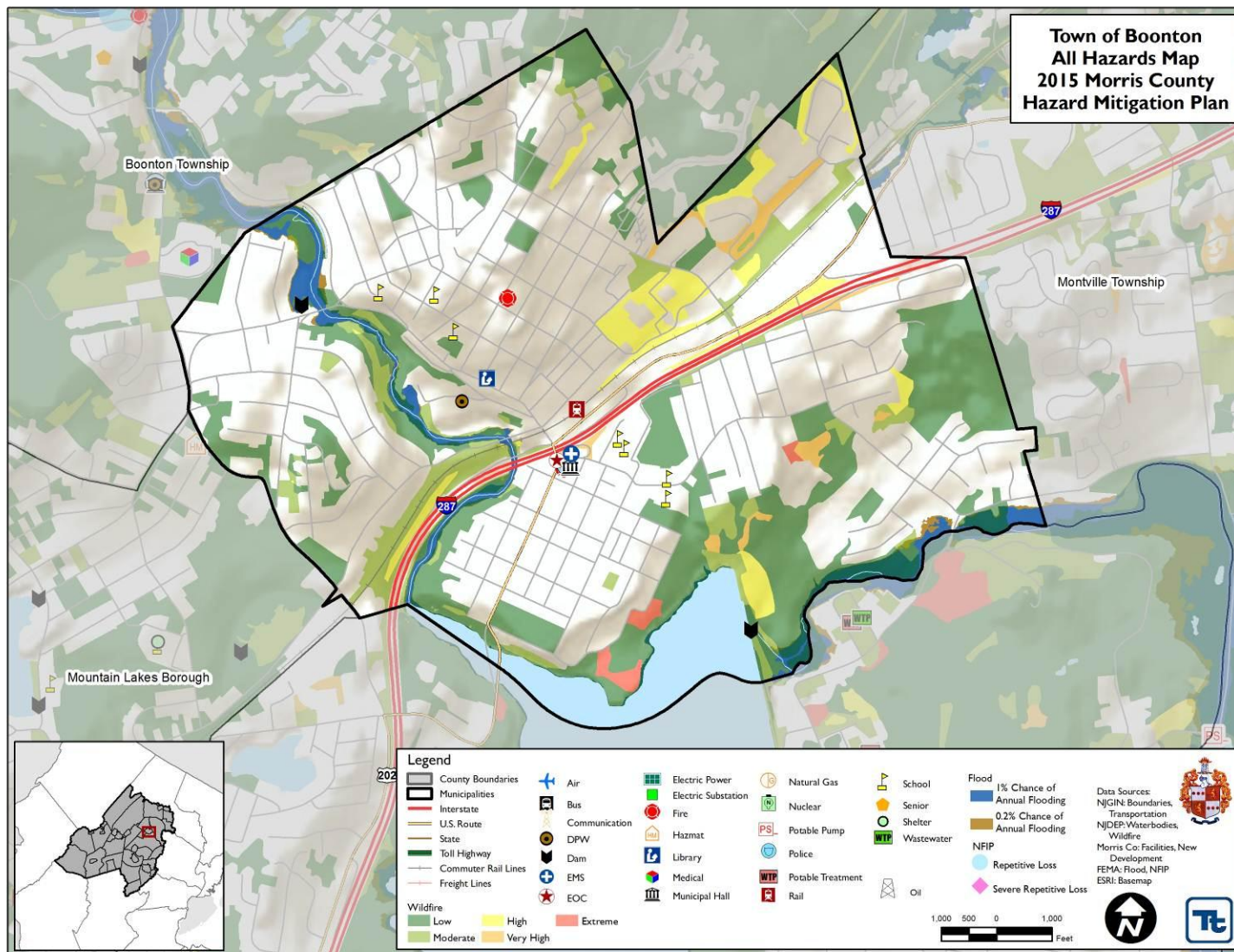
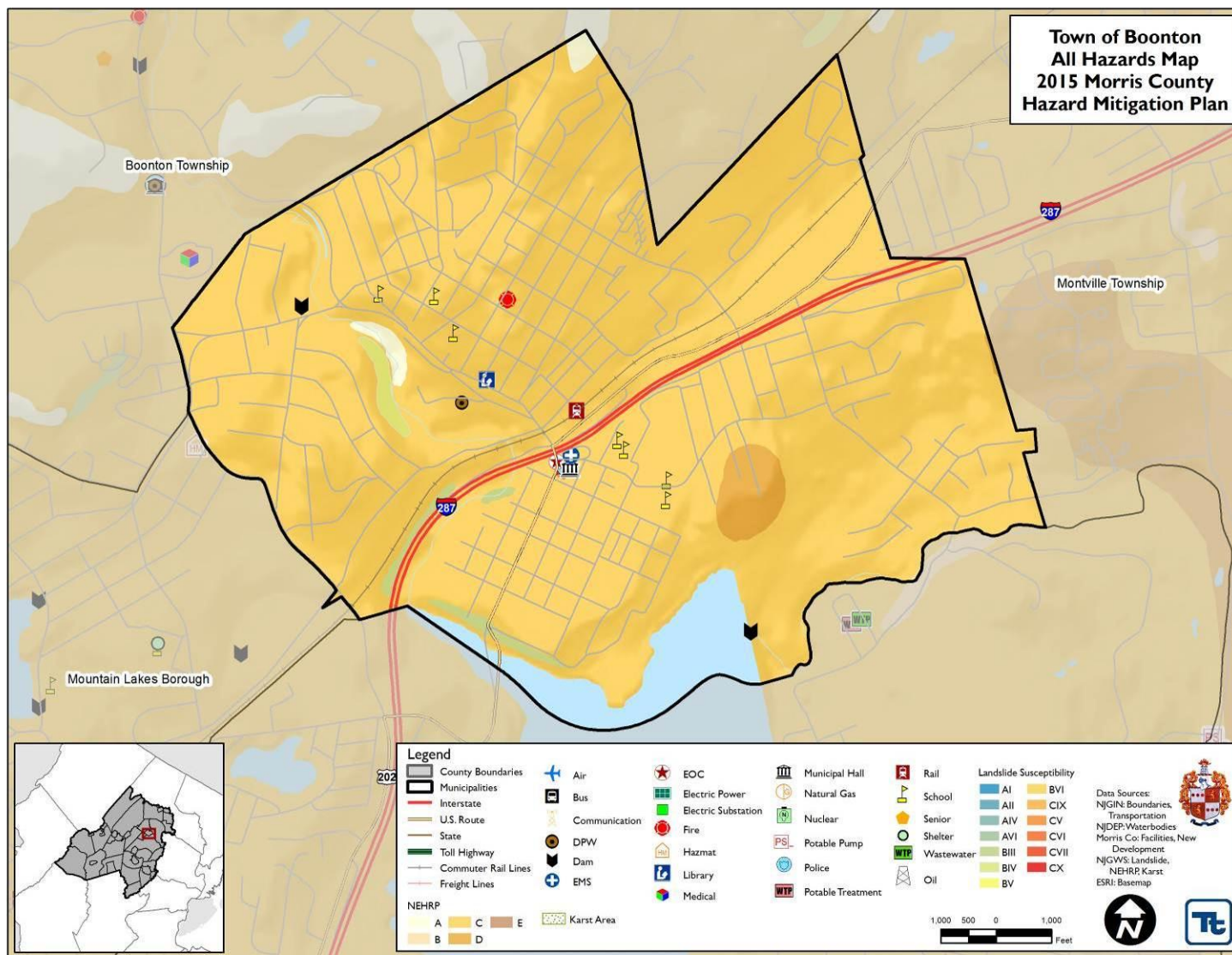




Figure 9.2-2. Town of Boonton Hazard Area Extent and Location Map 2





Action Number:

B-1

Mitigation Action/Initiative:

Backup Power for Critical and Essential Facilities

Assessing the Risk	
Hazard(s) addressed:	All
Specific problem being mitigated:	Loss of power to essential facilities in the Town
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Install or upgrade backup power equipment
	2. Purchase portable generators for each of the properties
	3. Do nothing – current problem continues
Action/Project Intended for Implementation	
Description of Selected Action/Project	<p>Install or upgrade backup power equipment at the following critical and essential facilities in the Town, as necessary funding is appropriated. While this overall initiative is considered a “High” priority, the individual locations have been prioritized to identify the prioritization of sites within this over-arching initiative:</p> <ul style="list-style-type: none">• Town Hall (most Town offices, police, fire, comfort station) – 100 Washington Street: Existing generator is only sized to power parts of police department. Upgrade existing system so that all operations within the Town Hall complex have backup power. High Priority• Sewer Lift Stations: Install permanent backup power equipment for the Toner Road and Myrtle Avenue lift stations. Toner Road will need to acquire additional property to site this equipment. High Priority.• DPW facility (off Plane Street): Install permanent back up power equipment to support DPW operations which includes the Town fleet fueling facilities. High Priority.• Recreation Center: Town is funding a generator for this facility that can serve as a comfort station. High Priority.• Kiwanis EMS – Washington Street• Boonton Housing Authority (Federal) Senior Housing-125 Chestnut Street: 20-30 cottages lack backup power.• Senior Building: Hall with small kitchen can accommodate ~60 people as a comfort station, lacks backup power.• High School: Lacks backup power, however the Town is not considering retrofitting this facility as a formal shelter. Low Priority.• Traffic lights: Major traffic lights throughout the Town lack backup power.
Action/Project Category	SIP
Goals/Objectives Met	3, 4
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	High – continued operation of critical and essential facilities; reduced emergency services costs; potential life safety
Estimated Cost	Medium – Site/project-specific
Priority*	High
Plan for Implementation	



Responsible/Lead Agency/Department	Boonton Town OEM, working with facility representatives
Local Planning Mechanism	Emergency Management, Capital Improvement
Potential Funding Sources	Town Budget; available mitigation grant funding with Town or facility owner funding for local match
Timeline for Completion	Short term for projects already funded (e.g. Rec. Center); long term for those projects where funding is not yet secured.
Reporting on Progress (Do not complete – this will be used for the 2020 Update)	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Action Number:

B-1

Mitigation Action/Initiative:

Backup Power for Critical and Essential Facilities

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Local Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)	High	



Action Number:

B-2

Mitigation Action/Initiative:

Vreeland Avenue Stormwater Management Upgrades

Assessing the Risk	
Hazard(s) addressed:	Flood; Severe Storm
Specific problem being mitigated:	This area floods during heavy rain events, resulting in road closures and traffic diversion. Private property flooding is limited to open land areas.
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Renovate and enlarge culvert at Vreeland Avenue and River Road
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Renovate and enlarge culvert at Vreeland Avenue and River Road. This area floods during heavy rain events, resulting in road closures and traffic diversion. Private property flooding is limited to open land areas. A 1999 plan to perform stormwater management upgrades here could not be funded.
Action/Project Category	SIP
Goals/Objectives Met	3, 4
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	Reduced vulnerability of critical infrastructure to closure; reduced need for emergency protective services.
Estimated Cost	Medium
Priority*	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	Department of Public Works; size of project may require County implementation
Local Planning Mechanism	Stormwater, Capital Improvement
Potential Funding Sources	TBD
Timeline for Completion	Short Term/DOF
Reporting on Progress (Do not complete – this will be used for the 2020 Update)	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Action Number:

B-2

Mitigation Action/Initiative:

Vreeland Avenue Stormwater Management Upgrades

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Local Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)	Medium	



Action Number:

B-3

Mitigation Action/Initiative:

Wootton Street Stormwater Management Upgrades

Assessing the Risk	
Hazard(s) addressed:	Flood, Severe Storm
Specific problem being mitigated:	Inadequate storm drains in this area that causes flooding
Evaluation of Potential Actions/Projects	
Actions/Projects Considered (name of project and reason for not selecting):	1. Upgrade storm drains on Wootton Street to mitigate flooding.
	2. Do nothing – current problem continues
	3. No other feasible options were identified
Action/Project Intended for Implementation	
Description of Selected Action/Project	Upgrade storm drains on Wootton Street to mitigate flooding.
Action/Project Category	SIP
Goals/Objectives Met	3, 4
Applies to existing and/or new development; or not applicable	Existing
Benefits (losses avoided)	Reduced vulnerability of critical infrastructure to closure; emergency protective services.
Estimated Cost	High
Priority*	Medium
Plan for Implementation	
Responsible/Lead Agency/Department	DPW
Local Planning Mechanism	Stormwater, Capital Improvement
Potential Funding Sources	TBD
Timeline for Completion	Short Term/DOF
Reporting on Progress (Do not complete – this will be used for the 2020 Update)	
Date of Status Report/ Report of Progress	Date: Progress on Action/Project:

* Refer to results of Prioritization (page 2)



Action Number:

B-3

Mitigation Action/Initiative:

Wootton Street Stormwater Management Upgrades

Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety		
Property Protection		
Cost-Effectiveness		
Technical		
Political		
Legal		
Fiscal		
Environmental		
Social		
Administrative		
Multi-Hazard		
Timeline		
Local Champion		
Other Community Objectives		
Total		
Priority (High/Med/Low)	Medium	